#9

SEQUENCE LISTING <110> Uni of Kentucky Research Foundation GEN, Susheng XIE, Mingtang <120> Genetic Insulator for Preventing Influence By Another Gene <130> 050229-0287 <140> 09/973,945 <141> 2001-10-11 <150> 60/241,735 <151> 2000-10-20 <160> 37 <170> PatentIn version 3.1 <210> 1 <211> 58 <212> DNA <213> Arabidopsis thaliana <400> 1 gaagatctag aatatatata tattcgatag aatatatata tattcgcaag accettce 58 <210> 2 <211> 35 <212> DNA <213> Arabidopsis thaliana <400> 2 ggaattccat ggatcccggg tgtaattgta aatag 35 <210> 3 <211> 30 <212> DNA <213> Arabidopsis thaliana <400> 3 gaagatctga tatcaagctt cgcaagaccc 30 <210> 4 <211> 63 <212> DNA <213> Arabidopsis thaliana <400> 4 gaagatctat tgtgagcgct cacaatgata attgtgagcg ctcacaattc gcaagaccct 60 tcc 63

| <210> | 5 | | | | |
|----------------------|--|-----|--|--|--|
| | 46 | | | | |
| | DNA | | | | |
| | Arabidopsis thaliana | | | | |
| 1223 | | | | | |
| <400> | 5 | | | | |
| | ctag aatatatata tattcactag ttcgcaagac ccttcc | 46 | | | |
| yaayacc | ctay adiatatata tatteactay treyeaayae certee | 40 | | | |
| | | | | | |
| | | | | | |
| <210> | · | | | | |
| <211> | 18 | | | | |
| <212> | DNA | | | | |
| <213> | Escherichia coli | | | | |
| | | | | | |
| <400> | 6 | | | | |
| attgtga | agcg ctcacaat | 18 | | | |
| 3 3 | | | | | |
| | | | | | |
| <210> | 7 | | | | |
| | 31 | | | | |
| <212> | | | | | |
| | | | | | |
| <213> | Escherichia coli | | | | |
| | _ | | | | |
| | 7 | 2.4 | | | |
| cttctaa | attg tgagcgctca caatgaaaaa g | 31 | | | |
| | | | | | |
| | | | | | |
| <210> | 8 | | | | |
| <211> | 31 | | | | |
| <212> | DNA | | | | |
| <213> | Escherichia coli | | | | |
| | | | | | |
| <400> | 8 | | | | |
| | catt gtgagcgctc acaattagaa g | 31 | | | |
| | sace gegagegeee acaaccagaa g | 0.2 | | | |
| | | | | | |
| ~21As | 0 | | | | |
| <210> | 9 | | | | |
| <211> | 16 | | | | |
| <212> | DNA | | | | |
| <213> | Arabidopsis thaliana | | | | |
| | | | | | |
| | 9 | | | | |
| gaatata | atat atattc | 16 | | | |
| | | | | | |
| | | | | | |
| <210> | 10 | | | | |
| <211> | 16 | | | | |
| <212> | DNA | | | | |
| <213> | Arabidopsis thaliana | | | | |
| | | | | | |
| <400> | 10 | | | | |
| | | | | | |
| gaatatatat atattc 16 | | | | | |
| | | | | | |
| J210s | 11 | | | | |
| <210> | 11 | | | | |
| <211> | 29 | | | | |

| <212> <213> | DNA Arabidopsis thaliana | |
|----------------|-----------------------------|-----|
| <400> | 11 | |
| | gaat atatatatat tcgaaaaag | 29 |
| | | |
| <210> | 12 | |
| <211> | | |
| <212> | | |
| <213> | Arabidopsis thaliana | |
| <400> | 12 | |
| | cgaa tatatata ttctagaag | 29 |
| | | |
| 04.0 | | |
| <210> | | |
| <211> <212> | | |
| | Arabidopsis thaliana | |
| | • | |
| <400> | 13 | |
| cttcta | gaat atatgtatat tcgaaaaag | 29 |
| | | |
| <210> | 14 | |
| <211> | 29 | |
| <212> | | |
| <213> | Arabidopsis thaliana | |
| <400> | 14 | |
| | cgaa tatacatata ttctagaag | 29 |
| | | |
| <210> | 15 | |
| <210> | | |
| <212> | | |
| <213> | | |
| | | |
| <400> | 15 | 0.0 |
| CLLCLA | acct atatatata tcgaaaaag | 29 |
| | | |
| <210> | 16 | |
| <211> | 29 | |
| <212> | | |
| <213> | Arabidopsis thaliana | |
| <400> | 16 | |
| | cgaa tatatata ggttagaag | 29 |
| | | |
| 2010s | 17 | |
| <210> <211> | 17 29 | |
| <211> | DNA | |
| <213> | Arabidopsis thaliana | |

| cttctagaag cgatatatat tcgaaaaag | 29 |
|---|----|
| | |
| <210> 18 | |
| <211> 29 | |
| <212> DNA | |
| <213> Arabidopsis thaliana | |
| | |
| <400> 18 | |
| ctttttcgaa tatatatcgc ttctagaag | 29 |
| <210> 19 | |
| <211> 29 | |
| <212> DNA | |
| <213> Arabidopsis thaliana | |
| <400> 19 | |
| cttctagaat atcgcgatat tcgaaaaag | 29 |
| <210> 20 | |
| <211> 29 | |
| <211> 25 <212> DNA | |
| <213> Arabidopsis thaliana | |
| <400> 20 | |
| ctttttcgaa tatcgcgata ttctagaag | 29 |
| | 29 |
| <210> 21 | |
| <211> 29 | |
| <212> DNA | • |
| <213> Arabidopsis thaliana | |
| <400> 21 | |
| cttctagaat atctatatat tcgaaaaag | 29 |
| <210> 22 | |
| <211> 29 | |
| <212> DNA | |
| <213> Arabidopsis thaliana | |
| <400> 22 | |
| etttttcgaa tatatagata ttctagaag | 29 |
| <210> 23 | |
| <211> 29 | |
| <212> DNA | |
| <pre><213> Arabidopsis thaliana</pre> | |
| <400> 23 | |
| ettctagaat atagatatat tcgaaaaag | 29 |

| <210> <211> | 24 29 | | | |
|----------------------|------------------------------------|-----|--|--|
| | | | | |
| | DNA | | | |
| <213> | Arabidopsis thaliana | | | |
| <400> | 24 | | | |
| | | 29 | | |
| CLLLLL | cgaa tatatctata ttctagaag | 23 | | |
| | | | | |
| <210> | 25 | | | |
| <211> | | | | |
| | 29 | | | |
| <212> | | | | |
| <213> | Arabidopsis thaliana | | | |
| -100> | | | | |
| <400> | 25 | 29 | | |
| cttctag | gaat atatctatat tcgaaaaag | 49 | | |
| | | | | |
| <210× | 26 | | | |
| <210> <211> | 26 | | | |
| | 29 | | | |
| <212> | | | | |
| <213> | Arabidopsis thaliana | | | |
| . 4 0 0 - | | | | |
| <400> | 26 | 20 | | |
| CTTTTT | cgaa tatagatata ttctagaag | 29 | | |
| | | | | |
| -210> | 27 | | | |
| <210> | 27 | | | |
| <211> | 29 | | | |
| <212> | | | | |
| <213> | Arabidopsis thaliana | | | |
| - 4.0.0 | 0.7 | | | |
| <400> | 27 | 2.0 | | |
| cttctag | gaat atatagatat tcgaaaaag | 29 | | |
| | | | | |
| <210> | 28 | | | |
| <211> | 31 | | | |
| <211> | DNA | | | |
| | | | | |
| \ 213> | Arabidopsis thaliana | | | |
| <400> | 28 | | | |
| | 20 cgaa tatctatata tattctagaa g | 31 | | |
| CLLLLL | cyda tatotatata tattotagaa g | 31 | | |
| | | | | |
| <210> | 29 | | | |
| | 16 | | | |
| <211> | | | | |
| | Arabidopsis thaliana | | | |
| /ZI3> | Atabidobata chariana | | | |
| <400> | 29 | | | |
| | | 16 | | |
| gaatatatgt atattc 16 | | | | |
| | | | | |
| <210> | 30 | | | |
| <211> | 16 | | | |
| ~ △⊥⊥✓ | 10 | | | |

| <212> <213> | DNA Arabidopsis | thaliana | |
|------------------|--------------------|----------|----|
| | 30 atat atattc | | 16 |
| <210> | 31 | | |
| <211> | | | |
| <212> | DNA Arabidopsis | thaliana | |
| | _ | charrana | |
| | 31 atat atattc | | 16 |
| gaageg | acae acaeee | | 10 |
| <210> | 32 | | |
| <211> | 16 | | |
| <212> <213> | DNA Arabidopsis | thaliana | |
| | | | |
| | 32 cgcg atattc | | 16 |
| | | | |
| <210> | 33 | | |
| <211> | 16 | | |
| <212> <213> | DNA Arabidopsis | thaliana | |
| | | | |
| <400> | 33 ctat atattc | | 16 |
| | | | |
| <210> | 34 | | |
| <211> | 16 | | |
| | DNA Arabidopsis | thaliana | |
| | | | |
| <400> gaatata | 34 agat atattc | | 16 |
| | | | |
| <210> | 35 | | |
| <211> <212> | 16 | | |
| <213> | DNA Arabidopsis | thaliana | |
| <400> | 35 | | |
| | atct atattc | | 16 |
| | | | |
| <210> | 36 | | |
| <211> <212> | 16 DNA | | |
| | -11L | | |

<213> Arabidopsis thaliana

<400> 36 gaatatatag atattc <210> 37 <211> 16 <212> DNA <213> Arabidopsis thaliana <220> <221> misc_feature <222> (1)..(6) <223> N can be any nucleotide <220> <221> misc_feature <222> (7)..(10) <223> NNNN is not CGCG <220> <221> misc_feature <222> (10)..(10) <223> N is not G <220> <221> misc_feature <222> (7)..(8) <223> N is not G <220> <221> misc_feature <222> (9)..(9) <223> N can be any nucleotide

<400> 37

nnnnnnnn atattc

5 4 4 m

16

16

m 2.2